

REMARKS

The Office Action mailed January 15, 2008 has been carefully reviewed along with the references cited therein. In the Office Action, the Examiner rejected claims 3, 5, 7-9, 21 and 24-27 under 35 U.S.C. § 102(b) as being anticipated by Parker et al. (U.S. Patent No. 1,846,978). Claims 3-9, 21, 22 and 24-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hays (U.S. Patent No. 2,087,031) in view of Onimaru et al. (U.S. Patent No. 5,616,021). Claims 10-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hays in view of Onimaru et al., as applied to claim 3 above, and further in view of Durst et al. (U.S. Patent No. 5,522,723). Claims 14 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hays in view of Onimaru et al. and Durst et al., as applied to claims 10 and 13 above, and further in view of Martin et al. (U.S. Patent No. 5,165,884). Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hays in view of Onimaru et al., as applied to claims 21 and 22 above, and further in view of Yamane et al. (U.S. Patent No. 3,982,878).

In this Amendment, claims 1-2 and 16-20 remain cancelled, claims 3-15, 21, 25 and 26 are presently amended. Also, claims 22-24 and 27 were previously presented, and claims 28-38 have been added to the application.

In both item 2 (35 U.S.C. § 102 rejection) and item 3 (35 U.S.C. § 103 rejection) of the subject Office Action, the Examiner has stated that the recitations with respect to "a maximum temperature" and a "temperature during combustion" have been deemed as functional language that adds no further patentable weight to the claim. Applicant respectfully disagrees with this opinion and respectfully requests reconsideration thereof.

Claims 3, 21 and 25 recite "a material... which endures a maximum temperature." The maximum temperature that a material can endure is believed to be an inherent, objectively determinable characteristic of that material. Similarly, the combustion temperature of a fuel and an oxidant/oxidation agent is an inherent, objectively determinable characteristic for any fuel/oxidant pair.

Parker et al. (U.S. Patent No. 1,846,978) does not teach the provision of a material [in the combustion chamber] which endures a maximum temperature that is

less than the combustion temperature of the fuel (oil, gas, powdered coal or fuel with “equal facility” – page 2, left-hand column, lines 30-33) and oxidant (air – page 2, left-hand column, line 1) [combusted in the combustion chamber]. On the contrary, page 1, lines 42-50 in combination with e.g. page 2, left-hand column, lines 22-26 of Parker et al. make it clear that the material provided in the combustion chamber must be able to endure the combustion temperature of the fuel and oxidant taught therein.

To ensure that the inventive device does not self-destroy itself in use, the present invention comprises means that introduce a low combustion value gas into the combustion chamber, thus yielding a combustion mixture whose combustion temperature is less than the aforementioned combustion temperature of the fuel and oxidant themselves. As explicitly taught on page 6, left-hand column, lines 4-9, the device of Parker et al. can be used without the steam equated by the Examiner with the low combustion value gas of the present invention. This, too, demonstrates that the material provided in the combustion chamber of Parker et al. must be able to endure the combustion temperature of the fuel and oxidant taught therein. The teachings of Parker et al. thus fall outside the scope of the structural features of claims 3, 21 and 25.

It is moreover apparent from page 1, left-hand column, lines 25-35 of Hays (U.S. Patent No. 2,087,031) in conjunction with Fig. 1 thereof that Hays likewise fails to teach the claimed provision of a material [in the combustion chamber] which endures a maximum temperature that is less than the combustion temperature of any fuel and oxidant for which the combustion chamber thereof was designed.

In light of the above and Applicant's clarifying amendments to claims 3, 21 and 25, Applicant respectfully requests that the Examiner remove the rejections to claims 3, 21 and 25, and those claims that depend from claims 3, 21 and 25.

New Claims

New claims 31 and 35 recite various features and feature combinations believed to be neither taught nor suggested by the prior art. Both claims 31 and 35 recite porous material disposed in the combustion chamber where a combustion temperature of the fuel and oxidation agent exceeds the maximum temperature that the material can withstand and where a resultant mixture of the fuel, the oxidation agent and the low

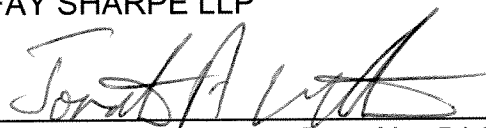
combustion value gas is less than the maximum temperature that the material can withstand. The remarks made in support of the patentability of the claims 3, 21 and 25 also apply to the new claims.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application are now in condition for allowance. Accordingly, an early indication of the same is earnestly solicited. In any event, should the Examiner consider personal contact advantageous to the disposition of this case, he is encouraged to telephone the undersigned at the number listed below.

Respectfully submitted,

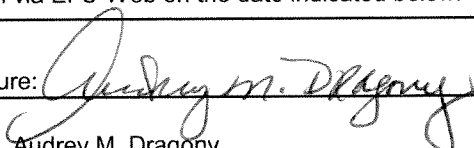
FAY SHARPE LLP



Jonathan A. Withrow, Reg. No. 54,548
1100 Superior Avenue, Seventh Floor
Cleveland, OH 44114-2579
216-861-5582

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Date

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